Operating Instructions

Air Top 2000 ST

(Control Rheostat Only)

Webasto
Feel the Drive

Introduction

Dear Webasto Customer,

Thank you for choosing the Webasto Air Top 2000 ST air heater.

The Air Top 2000 ST heater is used

- to heat cabins, boats, trucks, minibuses, vans and motor homes and
- to defrost vehicle windows.

We presume that the principle and mode of operation of your new heater has been explained to your complete satisfaction by the workshop/service centre which installed the heater. In these operating instructions we would like to once again provide you with an overview of the safe use of the Air Top 2000 ST heater.

Repair or maintenance work not described here may only be carried out by an authorized Webasto dealer.

Servicing and safety instructions

1. The year in which the heater was used for the first time must be permanently displayed on the factory plate by deleting the inapplicable years from the plate.
2. **The heaters are not designed for heating hazardous substance transport compartments.**
3. **The heater must be switched off when refueling or at filling stations to prevent the risk of explosion.**
4. **The heater may not be operated in enclosed spaces (such as garages) as a result of the risk of poisoning and asphyxiation, even if a timer or remote is used.**
5. In the event of long-lasting heavy smoke development, unusual combustion noises or a smell of fuel or if the heater suffers continuous fault cut-outs with error messages (flashing code), it must be shut down by removing the fuse and must not be used until it has been inspected by Webasto-trained personnel.
6. **Wherever inflammable vapors or dust may form (for example in the vicinity of fuel, carbon, wood dust, etc...), the heater must be switched off as a result of the risk of explosion.**
7. **The heat transfer unit on air heaters is exposed to very high thermal stress and must be replaced by a genuine Webasto spare part ten years after it is used for the first time. If exhaust lines pass through areas used by personnel, they must also be replaced by genuine spare parts after ten years.**
8. The fuel specified by the vehicle manufacturer is suitable for use in the Air Top 2000 ST B (petrol EN228).
9. The diesel fuel specified by the vehicle manufacturer is suitable for use in the Air Top 2000 ST D (diesel EN590).
   - No negative influences due to additives.
   - If fuel is extracted from the vehicle's tank, follow the additive instructions issued by the vehicle manufacturer.
   - If you change to low-temperature fuel, the heater must be operated for approx. 15 minutes so that the fuel system is filled with the new fuel.
10. The temperature in the area around the heater must not exceed 85 °C (storage temperature). If the temperature exceeds this level there is a risk of permanent damage to the electronics systems.
11. Noncompliance with the installation instructions and the warnings contained therein will lead to the exclusion of all liability by Webasto. The same applies if repairs are carried out incorrectly or with the use of parts other than genuine spare parts. This will result in the invalidation of the type approval for the heater unit, and therefore of its homologation/EC type licence.
12. Keep the hot air inlet and hot air outlet free of dirt and foreign bodies. Soiled or blocked hot air lines may cause overheating, and therefore result in the overheating cut-out tripping.
13. To prevent mechanical parts seizing, the heater should be operated for approx. 10 minutes every four weeks.
14. Do not stand on the heater and do not place any heavy items on the heater or throw items at the heater.
15. Do not place any items of clothing, textiles or similar materials over the heater or in front of the hot air inlet and the hot air outlet.
16. The current of hot air in the heater must not be restricted or blocked by highly inflammable substances or materials such as rags, cleaning wool, etc.
17. The heater must not be cleaned with a high pressure cleaner.

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Control Rheostat

Rotary knob for:
- Switching on and off
- Setting the room temperature
- Resetting after a fault cut-out

Indicator/error code display

! Changes to the settings on the control rheostat will be carried out with a time delay.

Switch On

Set the rotary knob on the control rheostat to the desired position.

! **NOTE:**
To prevent the hot and combustion air fan from blocking or scraping, ensure that there are no objects on or against the heater before you switch it on.

Ventilation Option (Optional)

A separate switch (not included in kit) allows the user to choose between heating and ventilation mode. In ventilation mode the fan speed depends on the position of the control rheostat.

Actions in event of faults

If an error occurs, first check the fuse and plug connections to ensure that they are in good condition and connected properly. If the actions described below do not rectify the error, have the heater checked by Webasto-trained personnel.

Heater unit cuts out automatically

Cause	Remedy
No combustion after start and repeat start	Switch heater unit off (for at least 2 seconds) and then on again
Flame extinguishes during operation	Switch heater unit off (for at least 2 seconds) and then on again
Heater unit overheats and indicator flashes	Make sure that hot air can flow freely, allow heater unit to cool down, Switch heater unit off (for at least 2 seconds) and then on again
Vehicle voltage too low	Charge battery Switch heater unit off (for at least 2 seconds) and then on again

Heater unit emits black smoke

Cause	Remedy
Combustion air and/or exhaust system blocked	Check combustion air and exhaust system for blockage

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Error code output on control rheostat

The error code is communicated by a series of flashes from the error code light in the center of the rotary knob. After a sequence of 5 fast flashes the error code will be communicated by a series of long flashes; refer to the table below for code explanations.

Example: F 03 = Pause Pause

Error code	Meaning
F 00	Control unit error (This error is indicated by (2) series of (5) fast flashes.
F 01	No start (after 2 starting attempts)
F 02	Flame failure (at least > 3)
F 03	Under voltage or over voltage
F 04	Premature flame recognition
F 05	Flame monitor (petrol heater) interrupt or short circuit
F 06	Temperature sensor interrupt or temperature sensor short circuit
F 07	Metering pump interrupt or metering pump short circuit
F 08	Fan motor interrupt or fan motor short circuit or fan motor overload or blocked
F 09	Glow plug interrupt or glow plug short circuit
F 10	Overheating
F 11	Overheating sensor interrupt or overheating sensor short circuit
*F 12	Heater unit lock-out
F 14	Overheating sensor installed incorrectly
F 15	Set point generator short circuit

* If heater diplays a code F-12, this indicates a “Lock-out mode”, this can happen after three consecutive failed starts.

To reset the heater:

1. Dissconnect power supply (i.e. remove fuse) while the heater is switched on.
2. Turn heater switch to the off position and reconnect to the power supply.
3. Heater codes have been cleared and heater has been removed from “Lock-out mode”.

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